

ELHILO 10/616428

1/14/04 Page 1

=> FILE REG  
FILE 'REGISTRY' ENTERED AT 10:22:37 ON 14 JAN 2004  
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STRUCTURE FILE UPDATES: 12 JAN 2004 HIGHEST RN 636984-67-3  
DICTIONARY FILE UPDATES: 12 JAN 2004 HIGHEST RN 636984-67-3

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

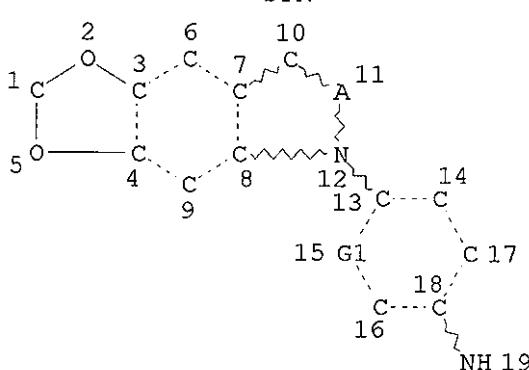
Please note that search-term pricing does apply when  
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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
information enter HELP PROP at an arrow prompt in the file or refer  
to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> D QUE L13

L11 STR



VAR G1=N/C

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE

L13 O SEA FILE=REGISTRY SSS FUL L11

=> FILE HCPLUS

FILE 'HCPLUS' ENTERED AT 10:22:54 ON 14 JAN 2004  
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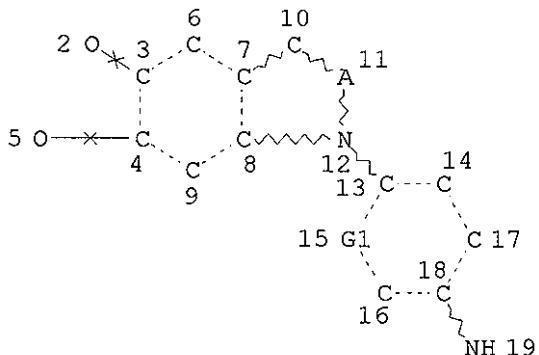
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FILE COVERS 1907 - 14 Jan 2004 VOL 140 ISS 3  
 FILE LAST UPDATED: 13 Jan 2004 (20040113/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L16  
 L17 8 L16

=> D QUE  
 L14 STR



11 structure/answers when oxygens are ring or chain

VAR G1=N/C  
 NODE ATTRIBUTES:  
 NSPEC IS RC AT 2  
 NSPEC IS RC AT 5  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE  
 L16 11 SEA FILE=REGISTRY SSS FUL L14  
 L17 8 SEA FILE=HCAPLUS ABB=ON L16

=> => D L17 ALL 1-8 HITSTR

L17 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:516257 HCAPLUS

8 CA references from the 11 structures

DN 137:95161  
 ED Entered STN: 11 Jul 2002  
 TI Indole/indoline hybrid dyes and their application to hair  
 IN Naumann, Frank; Hollenberg, Detlef; Hoeffkes, Horst; Rose, David  
 PA Henkel Kgaa, Germany  
 SO Ger. Offen., 22 pp.  
 CODEN: GWXXBX

*applicants*

DT Patent  
 LA German  
 IC ICM C09B007-00  
 ICS C09B069-00; A61K007-13; A61K007-021  
 CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)  
 Section cross-reference(s): 27, 62

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10100938	A1	20020711	DE 2001-10100938	20010110
	WO 2002055609	A2	20020718	WO 2002-EP13	20020103
	WO 2002055609	A3	20021227		
		W:	AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN		
		RW:	AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR		
	EP 1349535	A2	20031008	EP 2002-716059	20020103
		R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR		
PRAI	DE 2001-10100938	A	20010110		
	WO 2002-EP13	W	20020103		
OS	MARPAT 137:95161				
AB	Indole and indoline hybrid dyes and their precursors of the structure XZY (X = a group derived from a derivative of indole or indoline as melanin precursor; Y = a group from an oxidative dye coupler or developer or a derivative of indole or indoline as melanin precursor; Z = direct bond or spacer group) are suitable for the dyeing of keratinic fibers, in particular human hair. In an example, 4-(5,6-dimethoxy-1-indolinyl)aniline hydrochloride was prepared from 4-nitrofluorobenzene and 5,6-dimethoxyindoline, with formation and reduction of the intermediate 5,6-dimethoxy-1-(4-nitrophenyl)indoline.				
ST	indole indoline hair dye prodn				
IT	Alcohols, uses				
	RL: TEM (Technical or engineered material use); USES (Uses) (C16-18, Stenol 16/18; surfactant; indole/indoline oxidative hair dyes containing)				
IT	Alcohols, uses				
	RL: TEM (Technical or engineered material use); USES (Uses) (C16-18, ethoxylated, Ceteareth 20; surfactant; indole/indoline oxidative hair dyes containing)				
IT	Surfactants				
	(amphoteric; indole/indoline oxidative hair dyes containing)				
IT	Surfactants				
	(anionic; indole/indoline oxidative hair dyes containing)				
IT	Surfactants				
	(cationic; indole/indoline oxidative hair dyes containing)				
IT	Hair preparations				
	(dyes, direct-acting; production of indole/indoline hybrid dyes and their application to hair)				
IT	Hair preparations				
	(dyes, oxidative; production of indole/indoline hybrid dyes and their				

application to hair)

IT Surfactants  
 (nonionic; indole/indoline oxidative hair dyes containing)

IT Surfactants  
 (zwitterionic; indole/indoline oxidative hair dyes containing)

IT 90-15-3, 1-Naphthol 108-46-3, Resorcinol, uses 541-69-5,  
 m-Phenylenediamine dihydrochloride 591-27-5, 3-Aminophenol 66422-95-5,  
 2-(2,4-Diaminophenoxy)ethanol dihydrochloride 74918-21-1,  
 1,3-Bis(2,4-diaminophenoxy)propane tetrahydrochloride  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coupler; indole/indoline oxidative hair dyes containing)

IT **441349-87-7P 441349-88-8P**  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (dye; production of indole/indoline hybrid dyes and their application to hair)

IT 441349-89-9P 441349-90-2P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (intermediate; production of indole/indoline hybrid dyes and their application to hair)

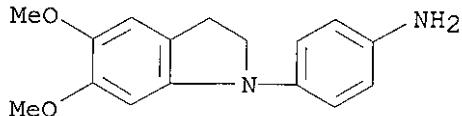
IT 350-46-9, 4-Nitrofluorobenzene 4548-45-2, 2-Chloro-5-nitropyridine  
 15937-07-2, 5,6-Dimethoxyindoline  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (starting material; production of indole/indoline hybrid dyes and their application to hair)

IT 9004-82-4, Texapon N28 83138-08-3, Dehyton K  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (surfactant; indole/indoline oxidative hair dyes containing)

IT **441349-87-7P 441349-88-8P**  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (dye; production of indole/indoline hybrid dyes and their application to hair)

RN 441349-87-7 HCPLUS

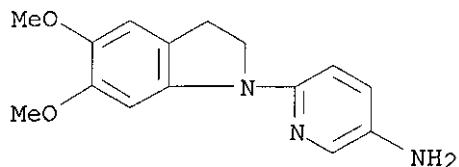
CN Benzenamine, 4-(2,3-dihydro-5,6-dimethoxy-1H-indol-1-yl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

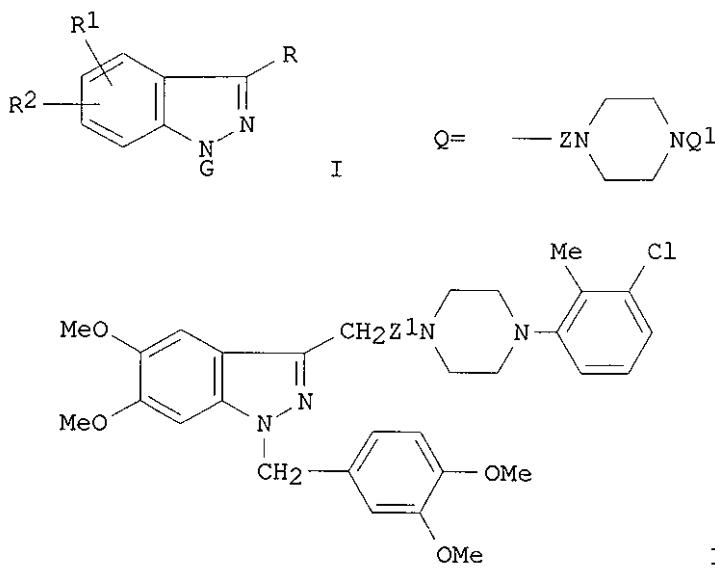
RN 441349-88-8 HCPLUS

CN 3-Pyridinamine, 6-(2,3-dihydro-5,6-dimethoxy-1H-indol-1-yl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L17 ANSWER 2 OF 8 HCPLUS COPYRIGHT 2004 ACS on STN  
AN 1996:694212 HCPLUS  
DN 125:328730  
ED Entered STN: 25 Nov 1996  
TI Preparation of 3-(piperazinoalkyl)indole derivatives as calmodulin antagonists  
IN Hasegawa, Atsushi; Makino, Tooru; Yamamoto, Kenjiro  
PA Daiichi Seiyaku Co, Japan  
SO Jpn. Kokai Tokkyo Koho, 49 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C07D231-56  
ICS C07D401-06; C07D401-12; C07D401-14; C07D403-06; C07D403-12;  
C07D405-06; C07D405-12; C07D405-14; C07D417-06; C07D491-048;  
C07D491-056  
ICA A61K031-415; A61K031-495; A61K031-505  
ICI C07D401-06, C07D213-16, C07D231-56; C07D401-12, C07D213-16  
CC 28-17 (Heterocyclic Compounds (More Than One Hetero Atom))  
Section cross-reference(s): 1  
FAN.CNT 1  
PATENT NO. KIND DATE APPLICATION NO. DATE  
----- ----- ----- -----  
PI JP 08225535 A2 19960903 JP 1995-294071 19951113  
PRAI JP 1994-280963 19941115  
OS MARPAT 125:328730  
GI



The title compds. [I; R = Q; wherein Z = single bond, C1-3 alkylene, C2-4 alkenylene, C1-3 hydroxyalkylene, CO, COCO, C1-2 alkylene containing one CO group at the end or middle of the C chain; Q1 = C1-8 alkyl, C3-8 cycloalkyl, (un)substituted aryl, heterocyclyl, diarylmethyl, or aryl-C1-6 alkyl; R1, R2 = C1-6 alkyl or alkoxy, CF<sub>3</sub>, CF<sub>3</sub>CH<sub>2</sub>, CF<sub>3</sub>O, CF<sub>3</sub>CH<sub>2</sub>O, C1-6 alkylthio, alkylsulfinyl, or alkylsulfonyl, C1-6 alkylcarbonyl, C2-7 alkanoylamino, NH<sub>2</sub>, mono- di(C1-6 alkyl)amino, OH, halo, C2-6 perfluoroalkyl, cyano, NO<sub>2</sub>, CO<sub>2</sub>H, C1-6 alkoxy carbonyl, tetrazolyl, SO<sub>2</sub>NH<sub>2</sub>, methylenedioxy, ethylenedioxy, morpholinosulfonyl, piperazinosulfonyl, 4-(C1-6 alkyl)piperazinosulfonyl, 4-[mono- or di(C1-6 alkyl)amino]piperidino, 4-aminopiperidino; G = C1-6 alkyl, (un)substituted Ph, PhCO, PhCOCH<sub>2</sub>,  $\alpha$ -hydroxybenzyl, phenyl-C1-6 alkyl, 5-membered aromatic heterocyclyl or heterocyclyl-C1-6 alkyl containing heteroatoms (a) N, O, or S or (b) one or two N and another N, O, or S, 6-membered aromatic heterocyclyl, heterocyclyl carbonyl, or heterocyclyl-C1-3 alkyl containing one or two N, phenylhydroxyalkyl, or 2-phenylethynyl, tetrazolyl, morpholino, etc.] are prepared. These compds. possess calmodulin-inhibitory, antihypoxic, or brain edema-improving activity, inhibit delayed neuronal death in hippocampus, and are useful for the treatment of circulatory diseases or brain diseases. Thus, 5,6-dimethoxy-1-(3,4-dimethoxybenzyl)-1H-indazole-3-acetic acid was condensed with 1-(3-chloro-2-methylphenyl)piperazine using di(2-pyridyl) disulfide and Ph<sub>3</sub>P in CH<sub>2</sub>Cl<sub>2</sub> at room temperature to give an intermediate (II; Z1 = CO), which was reduced by borane-THF complex in THF under reflux to give the title compound II (Z1 = CH<sub>2</sub>). The latter compound *in vitro* showed IC<sub>50</sub> of 3.1  $\mu$ g/mL against Ca/calmodulin-dependent phosphodiesterase.

## IT Calmodulins

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study); PROC (Process)  
 (preparation of 3-(piperazinoalkyl)indole derivs. as calmodulin antagonists for disease treatment)

## IT Circulation

(disorder, preparation of 3-(piperazinoalkyl)indole derivs. as calmodulin antagonists for disease treatment)

IT	160521-92-6P	160521-93-7P	160522-00-9P	162495-46-7P	162495-48-9P
	162495-50-3P	162495-91-2P	162495-92-3P	162495-98-9P	162495-99-0P
	162496-04-0P	162496-06-2P	162496-07-3P	162496-23-3P	162496-41-5P
	162496-42-6P	162496-43-7P	162496-44-8P	162496-45-9P	183314-91-2P
	183314-92-3P	183314-93-4P	183314-94-5P	183314-95-6P	183314-96-7P
	183314-97-8P	183314-98-9P	183314-99-0P	183315-00-6P	183315-01-7P
	183315-02-8P	183315-03-9P	183315-04-0P	183315-05-1P	183315-06-2P
	183315-07-3P	183315-08-4P	183315-09-5P	183315-10-8P	183315-11-9P
	183315-12-0P	183315-13-1P	183315-14-2P	183315-15-3P	183315-16-4P
	183315-17-5P	183315-18-6P	183315-19-7P	183315-20-0P	183315-21-1P
	183315-22-2P	183315-23-3P	183315-24-4P	183315-25-5P	183315-26-6P
	183315-27-7P	183315-28-8P	183315-29-9P	183315-30-2P	183315-31-3P
	183315-32-4P	183315-33-5P	183315-34-6P	183315-35-7P	183315-36-8P
	183315-38-0P	183315-41-5P	183315-45-9P	183315-47-1P	183315-48-2P
	183315-49-3P	183315-50-6P	183315-51-7P	183315-52-8P	183315-53-9P
	183315-54-0P	183315-55-1P	183315-56-2P	183315-57-3P	183315-58-4P
	183315-59-5P	183315-60-8P	183315-61-9P	183315-62-0P	183315-63-1P
	183315-64-2P	183315-65-3P	183315-66-4P	183315-67-5P	183315-68-6P
	183315-69-7P	183315-70-0P	183315-71-1P	183315-72-2P	183315-73-3P
	<b>183315-74-4P</b>	183315-75-5P	183315-76-6P	183315-77-7P	
	183315-78-8P	183315-79-9P	183315-80-2P	183315-81-3P	183315-82-4P
	183315-83-5P				

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 3-(piperazinoalkyl)indole derivs. as calmodulin antagonists for disease treatment)

IT 93-03-8, 3,4-Dimethoxybenzyl alcohol 107-14-2, Chloroacetonitrile  
 108-59-8, Dimethyl malonate 124-63-0, Mesyl chloride 151-50-8,  
 Potassium cyanide 1822-51-1, 4-Chloromethylpyridine hydrochloride  
 6315-89-5, 3,4-Dimethoxyaniline 14794-31-1, Ethyl succinyl chloride  
 29281-06-9 35386-24-4, N-(2-Methoxyphenyl)piperazine 54711-70-5,  
 1-(3-Chloro-2-methylphenyl)piperazine 98224-26-1, 1-(7-  
 Benzofuranyl)piperazine 103057-10-9, 4-Chloromethyl-1-tritylimidazole  
 183315-95-9, Methyl 5,6-dimethoxyindazole-3-acetate 183315-96-0  
 183315-98-2, 4-Morpholinosulfonamidobenzyl bromide

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 3-(piperazinoalkyl)indole derivs. as calmodulin antagonists for disease treatment)

IT 7306-46-9P, 3,4-Dimethoxybenzyl chloride 68438-33-5P 98205-73-3P  
 160521-88-0P 160521-89-1P 160521-90-4P 160521-91-5P 160521-95-9P  
 160521-99-3P 162496-66-4P 183315-84-6P 183315-85-7P 183315-86-8P  
 183315-87-9P 183315-88-0P 183315-89-1P 183315-90-4P 183315-91-5P  
 183315-92-6P 183315-93-7P 183315-94-8P 183315-97-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

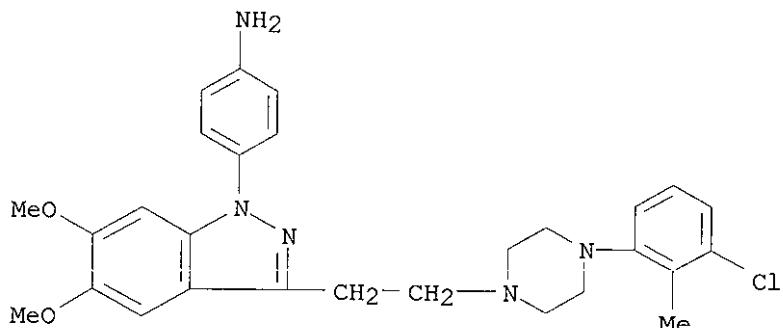
(preparation of 3-(piperazinoalkyl)indole derivs. as calmodulin antagonists for disease treatment)

IT **183315-74-4P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of 3-(piperazinoalkyl)indole derivs. as calmodulin antagonists for disease treatment)

RN 183315-74-4 HCAPLUS

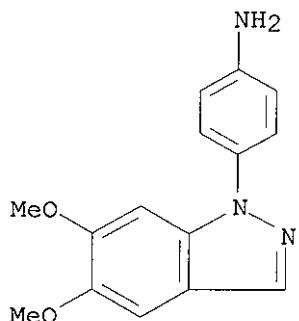
CN Benzenamine, 4-[3-[2-[4-(3-chloro-2-methylphenyl)-1-piperazinyl]ethyl]-5,6-dimethoxy-1H-indazol-1-yl], dihydrochloride (9CI) (CA INDEX NAME)



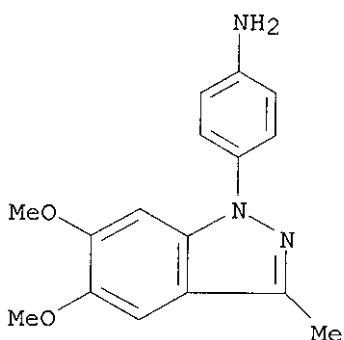
●2 HCl

L17 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1991:448658 HCAPLUS  
 DN 115:48658  
 ED Entered STN: 10 Aug 1991  
 TI Comparative study of the behavior of 1H-indazoles and 1-(p-aminophenyl)indazoles under electron impact  
 AU Erra-Balsells, R.  
 CS Fac. Cienc. Exactas Nat., Univ. Buenos Aires, Buenos Aires, 1430, Argent.  
 SO Organic Mass Spectrometry (1991), 26(4), 293-7  
 CODEN: ORMSBG; ISSN: 0030-493X  
 DT Journal  
 LA English  
 CC 22-8 (Physical Organic Chemistry)  
 AB The electron impact mass spectrometric fragmentation pathways for several 1H-indazoles and 1-(p-aminophenyl)indazoles were investigated. An interesting relationship between the substitution pattern in the framework of the indazole derivs. and the fragmentation patterns was observed  
 ST mass spectra indazole; aminophenylindazole mass spectra  
 IT Mass spectra  
 (of indazoles and of (aminophenyl)indazoles)  
 IT Substituent effect  
 (on mass spectra of indazoles)  
 IT 3176-62-3 7746-23-8 7746-24-9 7746-25-0 7746-26-1  
 7746-27-2 7746-28-3 7746-29-4 7746-30-7 7746-31-8 7788-03-6  
 7788-04-7 16640-81-6 16640-83-8 16640-87-2 16640-89-4 16640-90-7  
 16640-93-0 16641-04-6 16641-06-8 33101-36-9 110967-33-4  
 RL: PRP (Properties)  
 (mass spectrum of)  
 IT 7746-25-0 7746-26-1

RL: PRP (Properties)  
 (mass spectrum of)  
 RN 7746-25-0 HCAPLUS  
 CN Benzenamine, 4-(5,6-dimethoxy-1H-indazol-1-yl)- (9CI) (CA INDEX NAME)



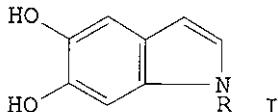
RN 7746-26-1 HCAPLUS  
 CN Benzenamine, 4-(5,6-dimethoxy-3-methyl-1H-indazol-1-yl)- (9CI) (CA INDEX NAME)



L17 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1990:204467 HCAPLUS  
 DN 112:204467  
 ED Entered STN: 26 May 1990  
 TI The use of N-substituted-5,6-dihydroxyindoles as a hair coloring agent  
 IN Schultz, Thomas M.; Brown, Keith C.; Murphy, Bryan P.; Mayer, Alice A.;  
 Lim, Mu Ill  
 PA Bristol-Myers Co., USA  
 SO Eur. Pat. Appl., 8 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM A61K007-13  
 CC 62-3 (Essential Oils and Cosmetics)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 335477	A2	19891004	EP 1989-300514	19890119
	EP 335477	A3	19900418		

EP 335477	B1	19930721		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
CA 1324320	A1	19931116	CA 1988-572311	19880718
AT 91621	E	19930815	AT 1989-300514	19890119
ES 2058487	T3	19941101	ES 1989-300514	19890119
JP 01254617	A2	19891011	JP 1989-24141	19890203
JP 2855205	B2	19990210		
PRAI US 1988-175565		19880331		
EP 1989-300514		19890119		
OS MARPAT 112:204467				
GI				



AB A method for dyeing hair comprises contacting the hair with a solution of a H<sub>2</sub>O-soluble metal ion followed by contacting the hair with an N-substituted 5,6-dihydroxyindole I [R = C1-8 alkyl, hydroxy- or aminoalkyl, (substituted) amino- or nitroaryl], or the reverse. Hair is colored light golden to light reddish brown to dark auburn to black, depending on the nature of the metal ion and its concentration, and the pH of the dye. Blended gray hair was treated with pH 9, 1.0% CuSO<sub>4</sub> for 5 min at room temperature, and then with a pH 3 1.0% solution of N-methyl-5,6-dihydroxyindole (II) for 5 min, resulting in a dark charcoal grey color. The same type hair treated the same as above but with II at pH 12 resulted in a black color.

ST hydroxyindole metal ion hair dye; methyldihydroxyindole copper ion hair dye; indole methyldihydroxy copper ion hair dye

IT Metals, biological studies  
RL: BIOL (Biological study)  
(dihydroxyindole derivs. in combination with, as hair dyes)

IT Hair preparations  
(dyes, dihydroxyindole derivs. in combination with metal ions as)

IT 7758-98-7, Cupric sulfate, biological studies  
RL: BIOL (Biological study)  
(N-methyl-dihydroxyindole in combination with, as hair dye)

IT 3131-52-0D, 5,6-Dihydroxyindole, N-substituted 4821-00-5,  
N-Methyl-5,6-dihydroxyindole 99855-01-3, N-Isopropyl-5,6-dihydroxyindole 126972-29-0, N-(2,4-Dinitrophenyl)-5,6-dihydroxyindole 126972-30-3,  
N-(4-Nitrophenyl)-5,6-dihydroxyindole 126972-31-4,  
N-(4-Aminophenyl)-5,6-dihydroxyindole  
RL: BIOL (Biological study)  
(as hair dye in combination with metal ions)

IT 7439-89-6D, Iron, mixture with dihydroxyindole derivs., biological studies  
7439-92-1D, Lead, mixture with dihydroxyindole derivs., biological studies  
7439-96-5D, Manganese, mixture with dihydroxyindole derivs., biological studies 7440-02-0D, Nickel, mixture with dihydroxyindole derivs., biological studies 7440-05-3D, Palladium, mixture with dihydroxyindole derivs., biological studies 7440-22-4D, Silver, mixture with dihydroxyindole derivs., biological studies 7440-31-5D, Tin, mixture with dihydroxyindole derivs., biological studies 7440-32-6D, Titanium, mixture with dihydroxyindole derivs., biological studies 7440-47-3D, Chromium, mixture with dihydroxyindole derivs., biological studies 7440-48-4D, Cobalt, mixture with dihydroxyindole derivs., biological studies

7440-50-8D, Copper, mixture with dihydroxyindole derivs., biological studies  
 7440-57-5D, Gold, mixture with dihydroxyindole derivs., biological studies  
 7440-66-6D, Zinc, mixture with dihydroxyindole derivs., biological studies  
 7440-69-9D, Bismuth, mixture with dihydroxyindole derivs., biological studies

RL: BIOL (Biological study)  
 (as hair dyes)

IT 557-34-6, Zinc(II) acetate 638-38-0, Manganese(II) acetate 7761-88-8,  
 Silver nitrate, biological studies 10028-22-5, Ferric sulfate

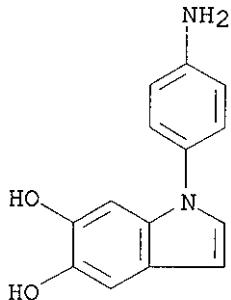
RL: BIOL (Biological study)  
 (N-methyl-dihydroxyindole in combination with, as hair dye)

IT 126972-31-4, N-(4-Aminophenyl)-5,6-dihydroxyindole  
 RL: BIOL (Biological study)

(as hair dye in combination with metal ions)

RN 126972-31-4 HCAPLUS

CN 1H-Indole-5,6-diol, 1-(4-aminophenyl)- (9CI) (CA INDEX NAME)



L17 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1979:212244 HCAPLUS

DN 90:212244

ED Entered STN: 12 May 1984

TI Polarographic study of some carbazolo- and dibenzofuranquinones in solutions of varying pH at the DME

AU Etaiw, Safaa Hassan

CS Fac. Sci., Tanta Univ., Tanta, Egypt

SO Annali di Chimica (Rome, Italy) (1978), 68(5-6), 421-31

CODEN: ANCRAI; ISSN: 0003-4592

DT Journal

LA English

CC 72-11 (Electrochemistry)

Section cross-reference(s): 22, 27, 43

AB The polarog. behavior of carbazoloquinone and dibenzofuranquinone derivs. in ethanolic-universal buffer mixts. was studied at the dropping Hg electrode. The polarograms consist of a single reduction wave in solns. having pH values from 3.0 to 9.5, but of 2 daughter waves in strong alkaline media. The electrode reaction involves the up-take of 2 electrons and 2 protons. The effect of mol. structure and pH on E1/2, as well as the reduction mechanism, are discussed. Also, correlations between the electrochem. and spectroscopic behavior of these compds. were investigated.

ST polarog carbazolo quinone benzo furan

IT Reduction, electrochemical

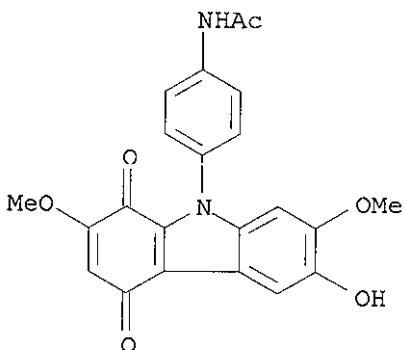
(of carbazoloquinone and dibenzofuranquinone derivs.)

IT 36783-65-0 36783-66-1 36783-67-2 36783-68-3 36820-07-2  
 43042-27-9 43042-29-1 43042-30-4 43042-31-5 50433-97-1  
 51620-25-8 51620-47-4 51620-56-5 54808-25-2D, derivs.  
**62983-28-2** 64513-58-2 70208-89-8 70377-05-8D, derivs.  
 RL: PRP (Properties)  
 (polarog. of, in ethanol media)

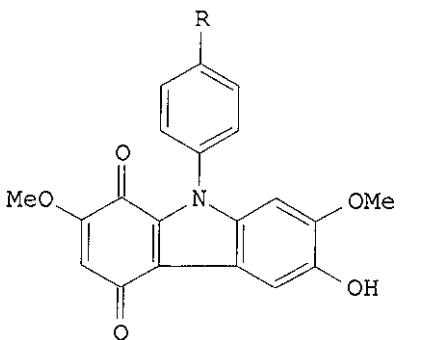
IT **62983-28-2**  
 RL: PRP (Properties)  
 (polarog. of, in ethanol media)

RN 62983-28-2 HCAPLUS

CN Acetamide, N-[4-(1,4-dihydro-6-hydroxy-2,7-dimethoxy-1,4-dioxo-9H-carbazol-9-yl)phenyl]- (9CI) (CA INDEX NAME)



L17 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1977:421795 HCAPLUS  
 DN 87:21795  
 ED Entered STN: 12 May 1984  
 TI The electronic and vibrational spectra of some N-substituted carbazoloquinones  
 AU Issa, I. M.; El-Samahy, A. A.; Issa, R. M.; El-Kashef, H. S.; Etaiw, S. H.  
 CS Fac. Sci., Tanta Univ., Tanta, Egypt  
 SO Revue Roumaine de Chimie (1977), 22(3), 411-19  
 CODEN: RRCHAX; ISSN: 0035-3930  
 DT Journal  
 LA English  
 CC 22-2 (Physical Organic Chemistry)  
 GI



I

AB The bands in the UV of I (R = H, NHAc, OMe, OH, Me, Cl, CO<sub>2</sub>H) are assigned and the solvent effects discussed. The 480 nm band is assigned to the intramol. charge-transfer from the N atom to the quinone ring, based on solvent and substituent effects. The pK of I,  $\lambda_{max}$  for I and its anion, and the  $\epsilon$  for I and its anion are linearly related to  $\sigma$ . The IR of I are discussed.

ST UV carbazoloquinone substituent effect; IR carbazoloquinone substituent effect; acidity carbazoloquinone; charge transfer carbazoloquinone; LFER carbazoloquinone UV IR

IT Carbonyl group  
(IR of, in N-substituted carbazoloquinones)

IT Linear free energy relationship  
(for UV and IR of N-substituted carbazoloquinones)

IT Reaction constant  
(for acidity of hydroxycarbazoloquinones)

IT Ultraviolet and visible spectra  
(of N-substituted carbazoloquinones, solvent and substituent effects on)

IT Ionization in liquids  
(of N-substituted hydroxycarbazoloquinones, UV in relation to)

IT Solvation  
(of carbazoloquinones in ground and excited states, charge-transfer in relation to)

IT Infrared spectra  
(of carbazoloquinones, substituent effect on)

IT Free energy  
(of ionization of hydroxycarbazoloquinones)

IT Energy level transition  
(electronic, of N-substituted carbazoloquinones)

IT Electron exchange  
(intramol., in carbazoloquinones, solvent and substituent effects on)

IT Energy level transition  
(vibrational, of N-substituted carbazoloquinones)

IT 62983-29-3 62983-30-6 62983-31-7 62983-32-8 62983-33-9  
**63026-84-6**

RL: PRP (Properties)  
(UV of)

IT 43042-33-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(cyclocondensation reaction of, with anilines)

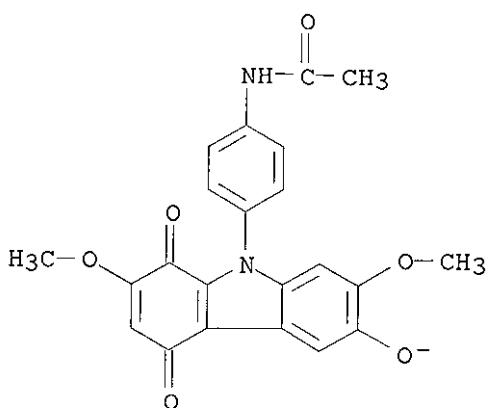
IT 36783-68-3 36820-07-2 51620-25-8 51620-47-4 51620-56-5  
**62983-28-2**

RL: PRP (Properties)  
(dissociation constant, IR, and UV of, solvent effect on)

IT **63026-84-6**  
RL: PRP (Properties)  
(UV of)

RN 63026-84-6 HCAPLUS

CN Acetamide, N-[4-(1,4-dihydro-6-hydroxy-2,7-dimethoxy-1,4-dioxo-9H-carbazol-9-yl)phenyl]-, ion(1-) (9CI) (CA INDEX NAME)



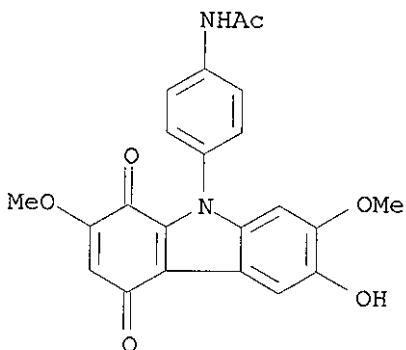
IT 62983-28-2

RL: PRP (Properties)

(dissociation constant, IR, and UV of, solvent effect on)

RN 62983-28-2 HCPLUS

CN Acetamide, N-[4-(1,4-dihydro-6-hydroxy-2,7-dimethoxy-1,4-dioxo-9H-carbazol-9-yl)phenyl]- (9CI) (CA INDEX NAME)



L17 ANSWER 7 OF 8 HCPLUS COPYRIGHT 2004 ACS on STN

AN 1974:95653 HCPLUS

DN 80:95653

ED Entered STN: 12 May 1984

TI Heterocyclic quinones. III. New carbazoloquinones from dimethoxydiquinone and various substituted amino compounds

AU Hammam, Ahmed S.

CS Dep. Chem., Univ. Assiut, Assiut, Egypt

SO Egyptian Journal of Chemistry (1972), 15(5), 391-410  
CODEN: EGJCA3; ISSN: 0449-2285

DT Journal

LA English

CC 27-11 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 22, 1, 34

GI For diagram(s), see printed CA Issue.

AB The reaction of amino compds. containing deactivating groups (e.g., p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>, p-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>COMe, amino acids, or acid amides) with 4,4'-dimethoxydiquinone (I) failed. I and amino acids did react in the

presence of Na<sub>2</sub>CO<sub>3</sub>, NaHCO<sub>3</sub>, or pyridine to give acidic carbazoloquinones. I and o-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H gave the blue-violet reduction product II in alc., the carbazoloquinone (III, R = o-HO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>) in ethylene glycol-pyridine, and the quinone (IV) in ethylene glycol. I and NH<sub>2</sub>OH gave III (R = OH). I and NH<sub>2</sub>NH<sub>2</sub> gave II. Approx. ten III were prepared including III (R = p-HO<sub>3</sub>SC<sub>6</sub>H<sub>4</sub>) (V) which was a tranquilizer with ED<sub>50</sub> 250 mg/kg and LD<sub>50</sub> 825 mg/kg; V was also a potentiator for tranquilizers. The substituent effect on the uv spectra of III was discussed.

ST methoxydiquinone amine condensation; carbazoloquinone tranquilizer; UV carbazoloquinone substituent effect; amino acid methoxydiquinone condensation

IT Tranquilizers  
(carbazoloquinones as)

IT Ultraviolet and visible spectra  
(of carbazoloquinones, substituent effect on)

IT Amines, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(with dimethoxydiquinone)

IT 51620-26-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and tranquilizer properties of)

IT 43042-31-5P 51620-27-0P 51620-47-4P 51620-48-5P 51620-49-6P  
51620-50-9P 51620-51-0P 51620-52-1P 51620-53-2P 51620-54-3P  
51620-55-4P 51620-56-5P 51620-57-6P 51620-58-7P **51620-59-8P**  
**51620-60-1P 51620-61-2P** 51620-62-3P 51620-63-4P  
51620-64-5P 51620-65-6P 51620-66-7P 51620-67-8P 51620-68-9P  
51620-69-0P 51620-70-3P 51620-71-4P 51620-72-5P 51620-73-6P  
51620-74-7P 51620-75-8P 51823-28-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

IT 43042-33-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with amines)

IT 74-89-5 75-04-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with carbazoloquinones)

IT 56-40-6, reactions 90-04-0 95-51-2 106-40-1 106-47-8 106-50-3,  
reactions 107-95-9 118-92-3 121-57-3 123-30-8 150-13-0  
540-37-4  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with dimethoxydiquinone)

IT 51620-25-8 51620-26-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with ethylamine)

IT 51620-46-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with methyleneamine)

IT 302-01-2, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reduction of dimethoxydiquinone by)

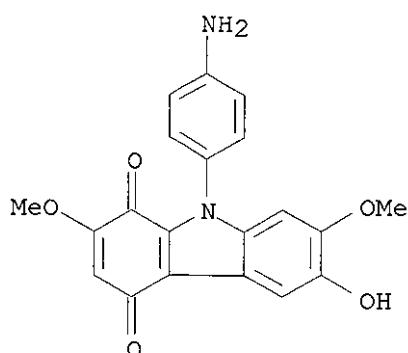
IT 7803-49-8, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(with dimethoxydiquinone)

IT **51620-59-8P 51620-60-1P 51620-61-2P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 51620-59-8 HCAPLUS

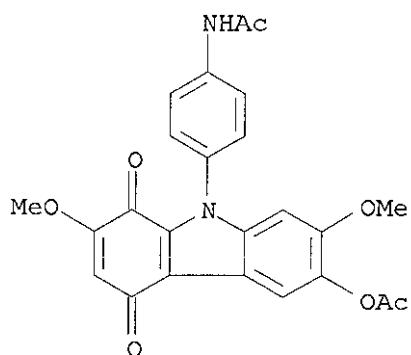
CN 1H-Carbazole-1,4(9H)-dione, 9-(4-aminophenyl)-6-hydroxy-2,7-dimethoxy-

(9CI) (CA INDEX NAME)



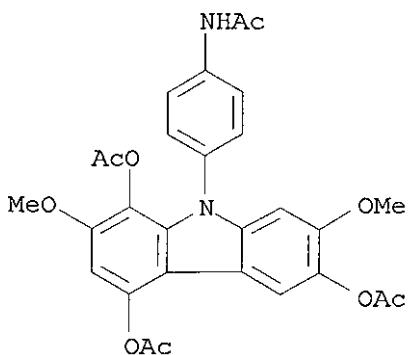
RN 51620-60-1 HCPLUS

CN Acetamide, N-[4-[6-(acetyloxy)-1,4-dihydro-2,7-dimethoxy-1,4-dioxo-9H-carbazol-9-yl]phenyl]- (9CI) (CA INDEX NAME)



RN 51620-61-2 HCPLUS

CN Acetamide, N-[4-[1,4,6-tris(acetyloxy)-2,7-dimethoxy-9H-carbazol-9-yl]phenyl]- (9CI) (CA INDEX NAME)

L17 ANSWER 8 OF 8 HCPLUS COPYRIGHT 2004 ACS on STN  
AN 1966:499303 HCPLUS

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

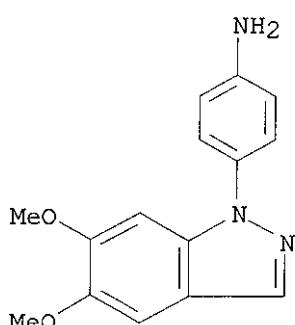
DN 65:99303  
OREF 65:18573g-h  
ED Entered STN: 22 Apr 2001  
TI Synthesis of indazoles using polyphosphoric acid. I  
AU Dennler, E. B.; Frasca, A. R.  
CS Lab. Quim. Org. Fac. Cienc. Exact. Nat., Buenos Aires  
SO Tetrahedron (1966), 22(9), 3131-41  
CODEN: TETRAB; ISSN: 0040-4020  
DT Journal  
LA English  
CC 38 (Heterocyclic Compounds (More Than One Hetero Atom))  
OS CASREACT 65:99303  
AB Indazoles were synthesized from nitrophenylhydrazones of several acetophenones, benzaldehydes and benzophenones, employing polyphosphoric acid as catalyst.  
IT Catalysts and Catalysis  
(in indazole synthesis, polyphosphoric acid as)  
IT Acetophenone, 2',5'-dimethoxy-, (p-nitrophenyl)hydrazone  
Thiazolo[5,4-f]quinoline-8-carboxylic acid, 7-(o-hydroxyphenyl)-2-methyl-, 8-lactone  
IT 271-44-3, Indazole  
(derivs., synthesis with polyphosphoric acid catalysts)  
IT 7664-38-2, Phosphoric acid  
(polyphosphoric acid catalysts, in indazole synthesis)  
IT 1575-21-9, 1H-Indazole, 1-(p-nitrophenyl)-3-phenyl- 2675-26-5,  
Acetophenone, 4'-bromo-, (p-nitrophenyl)hydrazone 2675-27-6,  
Acetophenone, 4'-ethoxy-, (p-nitrophenyl)hydrazone 3176-62-3,  
1H-Indazole, 3-methyl- 4106-21-2, 1H-Indazole, 3-methyl-1-(p-nitrophenyl)- 4106-23-4, 1H-Indazole, 6-methoxy-3-methyl-1-(p-nitrophenyl)- 7714-54-7, Acetophenone, 2',4'-dimethyl-, (m-nitrophenyl)hydrazone 7714-55-8, Acetophenone, (o-nitrophenyl)hydrazone 7714-56-9, Acetophenone, 4'-chloro-, (o-nitrophenyl)hydrazone 7746-02-3, Thiazolo[4,5-f]quinoline-8-carboxylic acid, 7-(o-hydroxyphenyl)-2-methyl-, 8-lactone 7746-04-5, 1(2H)-Naphthalenone, 3,4-dihydro-, 6-benzothiazolylhydrazone 7746-07-8, 1(2H)-Naphthalenone, 3,4-dihydro-6,7-dimethyl-, (2-methyl-6-benzothiazolyl)hydrazone 7746-10-3, 1H-Indazole, 4-chloro-3-methyl-1-(p-nitrophenyl)- 7746-11-4, 1H-Indazole, 6-bromo-3-methyl-1-(p-nitrophenyl)- 7746-12-5, 1H-Indazole, 3,6-dimethyl-1-(p-nitrophenyl)- 7746-13-6, 1H-Indazole, 6-ethyl-3-methyl-1-(p-nitrophenyl)- 7746-15-8, 1H-Indazole, 6-ethoxy-3-methyl-1-(p-nitrophenyl)- 7746-16-9, 1H-Indazole, 3-methyl-1-(p-nitrophenyl)-6-phenyl- 7746-17-0, 1H-Indazole, 3,4,6-trimethyl-1-(p-nitrophenyl)- 7746-18-1, 1H-Indazole, 4,6-dimethoxy-3-methyl-1-(p-nitrophenyl)- 7746-19-2, 1H-Indazole, 5,6-dimethoxy-3-methyl-1-(p-nitrophenyl)- 7746-20-5, 1H-Indazole, 6-methoxy-1-(p-nitrophenyl)- 7746-21-6, 1H-Indazol-6-ol, 5-methoxy-1-(p-nitrophenyl)- 7746-22-7, 1H-Indazole, 5,6-dimethoxy-1-(p-nitrophenyl)- 7746-23-8, 1H-Indazole, 1-(p-aminophenyl)-3,6-dimethyl- 7746-24-9, 1H-Indazole, 1-(p-aminophenyl)-6-methoxy-3-methyl- 7746-25-0, 1H-Indazole, 1-(p-aminophenyl)-5,6-dimethoxy- 7746-26-1, 1H-Indazole, 1-(p-aminophenyl)-5,6-dimethoxy-3-methyl- 7746-27-2, 1H-Indazole, 6-bromo-3-methyl- 7746-28-3, 1H-Indazole, 3,6-dimethyl- 7746-29-4, 1H-Indazole, 6-methoxy-3-methyl- 7746-31-8, 1H-Indazole, 5,6-dimethoxy-3-methyl- 7746-32-9, 1H-Indazole, 1,1'-(azoxydi-p-phenylene)bis[3-methyl- 7746-33-0, 1H-Indazole, 1,1'-(azodi-p-phenylene)bis[3-methyl- 7746-35-2, 1H-Indazole, 3-methyl-1-(m-

nitrophenyl)- 7746-37-4, 1H-Indazole, 6-chloro-3-methyl-1-(m-nitrophenyl)- 7746-38-5, Indole, 2-(p-chlorophenyl)-4-nitro-7746-39-6, Indole, 2-(p-chlorophenyl)-6-nitro- 7746-40-9, 1H-Indazole, 3,6-dimethyl-1-(m-nitrophenyl)- 7746-41-0, Indole, 4-nitro-2-p-tolyl-7746-42-1, Indole, 6-nitro-2-p-tolyl- 7746-43-2, 1H-Indazole, 6-methoxy-3-methyl-1-(m-nitrophenyl)- 7746-44-3, 1H-Indazole, 3-methyl-1-(m-nitrophenyl)-6-phenyl- 7746-45-4, 1H-Indazole, 3,4,6-trimethyl-1-(m-nitrophenyl)- 7746-47-6, Acetophenone, 3'-hydroxy-, (p-nitrophenyl)hydrazone 7746-48-7, Acetophenone, 4'-hydroxy-, (p-nitrophenyl)hydrazone 7746-49-8, Acetophenone, 4'-ethyl-, (p-nitrophenyl)hydrazone 7746-51-2, Acetophenone, 4'-phenyl-, (p-nitrophenyl)hydrazone 7746-52-3, Acetophenone, 2'-nitro-, (p-nitrophenyl)hydrazone 7746-53-4, Acetophenone, 4'-hydroxy-, (p-nitrophenyl)hydrazone, acetate (ester) 7746-54-5, Acetophenone, 2',4'-dimethyl-, (p-nitrophenyl)hydrazone 7746-55-6, Acetophenone, 2',4'-dimethoxy-, (p-nitrophenyl)hydrazone 7746-57-8, Acetophenone, 2',4',5'-trimethyl-, (p-nitrophenyl)hydrazone 7746-58-9, Acetophenone, (m-nitrophenyl)hydrazone 7746-59-0, Acetophenone, 4'-chloro-, (m-nitrophenyl)hydrazone 7746-60-3, Acetophenone, 4'-methyl-, (m-nitrophenyl)hydrazone 7746-61-4, Acetophenone, 4'-methoxy-, (m-nitrophenyl)hydrazone 7759-57-1, Thiazolo[4,5-f]quinoline-8-carboxylic acid, 7-(o-hydroxyphenyl)-, 8-lactone 7759-58-2, Thiazolo[5,4-f]quinoline-8-carboxylic acid, 7-(o-hydroxyphenyl)-, 8-lactone 7765-63-1, Acetophenone, 4'-phenyl-, (m-nitrophenyl)hydrazone 7767-82-0, Acetophenone, 4'-methyl-, (o-nitrophenyl)hydrazone 7767-83-1, Acetophenone, 4'-methoxy-, (o-nitrophenyl)hydrazone 7788-02-5, 1H-Indazole, 6-methoxy-3-(p-methoxyphenyl)-1-(p-nitrophenyl)- 7788-03-6, 1H-Indazole, 1-(p-aminophenyl)-3-methyl- 7788-04-7, 1H-Indazole, 1-(p-aminophenyl)-6-bromo-3-methyl- 10550-35-3, 1H-Indazole, 6-chloro-3-methyl-1-(p-nitrophenyl)- 10550-36-4, 1H-Indazol-6-ol, 3-methyl-1-(p-nitrophenyl)-, acetate (ester) 14888-76-7, 1H-Indazole, 3-methyl-, picrate 90557-61-2, 1H-Indazole, 6,7-dimethoxy-  
     (preparation of)

IT 7746-25-0, 1H-Indazole, 1-(p-aminophenyl)-5,6-dimethoxy-  
 7746-26-1, 1H-Indazole, 1-(p-aminophenyl)-5,6-dimethoxy-3-methyl-  
     (preparation of)

RN 7746-25-0 HCPLUS

CN Benzenamine, 4-(5,6-dimethoxy-1H-indazol-1-yl)- (9CI) (CA INDEX NAME)

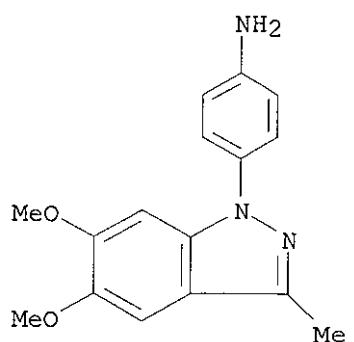


RN 7746-26-1 HCPLUS

CN Benzenamine, 4-(5,6-dimethoxy-3-methyl-1H-indazol-1-yl)- (9CI) (CA INDEX NAME)

ELHILO 10/616428

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